



TURCO PRODUCTS, INC.
MATERIAL SAFETY DATA SHEET



03027
6304-1

SECTION I — PRODUCT NAME: Turco 6304

Manufacturer's Name: **TURCO PRODUCTS, INC.**
Address: **7300 Bolsa Ave., Westminster, CA 92684-3600**
Emergency Telephone No.: **(614) 387-6200 Info. Tel. No. (714) 890-3600**

SECTION II — HAZARDOUS INFORMATION:

COMPONENTS	C.A.S. Number	CERCLA RQ SPILL lbs.	RCRA Waste No.	ACGIH TLV	OSHA TWA	%, WT.
Chromic acid *	1333-82-0 -	1000	D007	50µg/m ³ Cr	0.1 PPM CrO ₃	50
The following non-hazardous ingredient is listed in accordance with the Worker and Community Right-to-Know Act of certain states, including Pennsylvania and New Jersey: Water (7732-18-5)						
CARCINOGENS (As defined in 29CFR 1910-1200)		NTP		IARC		OSHA
Chromium and certain chromium compounds (50 %)		Listed		Listed		Not regulated
PROPER SHIPPING NAME: Chromic acid solution		HAZARD CLASS: corrosive material		HAZARD I.D. No.: UN 1755		

SECTION III — PHYSICAL DATA:

BOILING POINT, °F: 212°F	SPECIFIC GRAVITY: 1.50
VAPOR PRESSURE (mmHg): 20 mm Hg	VOLATILE, % BY VOL: 50
VAPOR DENSITY (AIR = 1): Less than 1	EVAPORATION RATE (Bu. Ac. = 1): Less than 1
APPEARANCE AND ODOR: Dark red liquid, mild odor	SOLUBILITY IN WATER: Complete PH: 1-2

SECTION IV — FIRE AND EXPLOSION HAZARDS:

FLASH POINT AND METHOD USED: None	PROPOSITION 65 WARNING: This product may contain detectable (trace) quantities of a substance known to the state of California to cause cancer, birth defects or other reproductive harm. (CALIFORNIA HEALTH & SAFETY CODE SECTION 25249.5)
EXTINGUISHING MEDIA: Dry chemical, carbon dioxide	
SPECIAL FIRE FIGHTING PROCEDURE AND PRECAUTIONS: Use self-contained respiratory protection and full protective gear. Any water runoff may contain hexavalent chrome and should not be allowed to enter sewer or waterways.	
UNUSUAL FIRE AND EXPLOSION HAZARDS: May increase intensity of fire when in contact with combustible materials. Cool fire exposed containers cautiously with water spray.	

SECTION V — HEALTH, EMERGENCY AND FIRST AID INFORMATION:

EFFECTS OF OVER EXPOSURE: EYES: Contact with product or product solution will cause severe irritation, possible conjunctivitis, possible chemical burns, possible permanent damage and possible blindness.
SKIN: Contact with product or product solution will cause severe irritation and possible chemical burns. Contact with breaks in skin can cause ulceration. Chromic acid is a skin sensitizer. May be absorbed through skin.
INHALATION: Inhalation of product mist or mist from product solution may cause ulceration and perforation of nasal septum, and irritation and damage to respiratory system. Symptoms of such irritation may resemble those of asthma. Overexposure to hexavalent chrome may cause lung cancer risk.
INGESTION: Can be harmful or fatal if swallowed. Toxic effects may not appear immediately.
MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED: Chromic acid is a systemic poison affecting the liver, kidneys and gastrointestinal tract, repeated overexposure may aggravate any preexisting dysfunction of these systems.

N-154A

* Chemicals in Section II that have an asterisk are subject to SARA Section 313 reporting.

NO. 11-124A
FIRST AID: EYES: Speed is essential. Immediately begin flushing eyes with large volumes of water. Continue for at least 15 minutes. Hold lids apart to assure contact with all surfaces. Obtain medical attention.

SKIN: Wash with soap and flush with plenty of water without delay. If irritation is evident or blistering occurs, obtain medical attention.

INHALATION: Remove to fresh air. Administer oxygen if breathing is difficult. Obtain medical attention if irritation persists.

INGESTION: If conscious immediately dilute by giving large volume of water. Induce vomiting by giving syrup of ipecac or touching back of throat with finger. Repeat until vomit fluid is clear. Follow by more water or mucilaginous drinks. Obtain immediate medical attention. Never attempt to induce vomiting or give anything by mouth to an unconscious person.

PRIMARY ROUTES OF ENTRY: INHALATION X SKIN CONTACT X OTHER

SECTION VI — REACTIVITY DATE:

STABILITY: STABLE X UNSTABLE HAZARDOUS POLYMERIZATION WILL NOT OCCUR

CONDITIONS TO AVOID: Contact with strong acids, strong alkali, reducing compounds, flammable or combustible materials.

HAZARDOUS DECOMPOSITION PRODUCTS:
None

SECTION VII — SPILL, LEAK AND DISPOSAL PROCEDURE:

SPILL OR RELEASE PROCEDURE: CONCENTRATE: Cleanup personnel should use appropriate protective equipment. Confine spill. Stop leak at source if this can be done safely. Ventilate area. Evacuate nonessential personnel. Pump liquid into DOT-approved drums for disposal. Absorb remaining material onto inert, inorganic absorbent and place in DOT-approved drums for disposal. Wash area with water. Collect washings and place in DOT-approved drums for disposal. Continue washing and collecting washing until all chrome is removed. Keep spill and all washings from entering sewer or waterways.
USE SOLUTION:

As for concentrate

DISPOSAL INFORMATION: CONCENTRATE: (1) Transfer to reclaiming center for recycling or reuse, if possible. (2) Transfer to licensed hazardous waste treatment or disposal site for disposition under applicable local, state and regional regulations as hazardous waste. (3) Small amounts may be diluted with water, treated as described below and released to sewer if local regulations permit.

SPENT SOLUTION AND RINSES: Dispose per (1) or (2) above, or spent solution and rinses can be treated to remove chromate and other oxidizing agents by reduction and precipitation and other objectionable ions removed by precipitation. Clarified water may be released to sewer if local regulations permit. Precipitated sludge must then be disposed of as hazardous waste per (1) or (2) above.

SECTION VIII — SPECIAL PROTECTION INFORMATION:

RESPIRATORY PROTECTION: For mist conditions, a NIOSH-approved respirator for toxic dusts and mist is advised. If respirators are used, a formal training and screening program must be initiated. See 29 CFR 1910-134.

VENTILATION: Maintain sufficient mechanical ventilation to keep particulate concentration below TLV.

PROTECTIVE EQUIPMENT: CHEMICAL FACE SHIELD OR GOGGLES: X **GLOVES:** X **BOOTS:** X **APRON:** X **PROTECTIVE SUIT:** Not normally required, but advised if necessary to avoid skin contact.
GLOVES, BOOTS, APRON AND SUIT MADE FROM: Material resistant to chromic acid (e.g. Viton, PVC, etc.)

RECOMMENDED PERSONAL HYGIENE: Wash hands and face with soap and water before smoking or eating. Immediately remove all contaminated clothing. Launder before reuse. Do not launder at home. Discard contaminated shoes.

SECTION IX — OTHER INFORMATION:

SPECIAL PRECAUTIONS — STORAGE AND HANDLING:

Store in dry protected area away from strong acids or bases, reducing compounds, flammable or combustible material.

MIXING: Slowly add to solution while mixing, taking care to avoid splashing or spattering. Use appropriate protective equipment.

REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT: Relieve any pressure. Cover openings to avoid splashing. Clean exterior and interior by flushing with water. Collect flushings for disposal. Use protective equipment for eyes, skin and inhalation.

DATE PREPARED: 5/30/89

DATE REVIEWED:

APPROVED: F. Fantozzi Q.C. DEPT. / *JFG*

R & D DEPT. / *JFG*

SAFETY & ENVIRON. *EEJ*

TMSDS 4-6/86



TURCO PRODUCTS, INC.
SUBSIDIARY OF PENNWALT CORPORATION

IMPORTANT NOTICE

Re: Proposition 65 Warnings

This letter is intended to make you particularly aware of a new warning that we are adding to our Material Safety Data Sheets for essentially all of our products. The warning is required when any detectable amount, including trace quantities, of particular chemicals listed by the State of California as being carcinogens or reproductive toxins may be present in the product. The Safe Drinking Water and Toxic Enforcement Act of 1986 resulting from California's Proposition 65 requires among its major provisions that:

"No person in the course of doing business shall knowingly and intentionally expose any individual to a chemical known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning to such individual" (California Health and Safety Code Section 25249.6)

We have recently received notification from various manufacturers of the individual ingredients being used to formulate our metalworking/treatment, etc. products that these basic ingredients contain detectable and/or trace amounts of the State-listed substances, usually as impurities or contaminants. We have also received notices from container suppliers that their metal and plastic containers may similarly contain detectable amounts of one or more State-listed substances.

In addition to any chemicals already listed as hazardous, Turco finished products may contain these basic ingredients which may or do contain the detectable or trace amounts of the State-listed substances. The type of warning shown on our MSDS sheets is therefore necessary. Copies of the applicable MSDS's are supplied to you as attachments to each bill of lading. Metalworking/treatment, etc. products, such as ours which are formulated with currently available ingredients containing trace or detectable quantities of the State-listed substances, are required under the law to bear the Proposition 65 warning.

It is recommended that you review The Safe Drinking Water and Enforcement Act carefully in order to determine if other obligations might exist for your company.

Very truly yours,

Turco Products, Inc.


W. J. Hackett
Director of Technical Services

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State Route 95 West / Box 195 / Marion, Ohio 43302 / (614) 387-6200

00541

5351-29A(30A)

SECTION I — PRODUCT NAME: Turco 5351

Manufacturer's Name: TURCO PRODUCTS, INC.
 Address: 7300 Bolsa Ave., Westminster, CA 92684-3600
 Emergency Telephone No.: (814) 387-8200 Info. Tel. No. (714) 890-3800

SECTION II — HAZARDOUS INFORMATION:

COMPONENTS	C.A.S. Number	CERCLA RQ PML lbs.	RCRA Waste No.	ACGIH TLV	OSHA TWA	% WT.
methylene chloride*	75-09-2	1000	U080	100 PPM	500 PPM	55
phenol*	108-95-2	1000	U188	5 PPM skin	5 PPM skin	20
sodium chromate*	7775-11-3	1000	D007	50 µg/m ³ Cr	0.1 PPM CrO ₃	1
The following non-hazardous ingredients are listed in accordance with the Worker and Community Right-to-Know Act of certain states, including Pennsylvania and New Jersey: Water (7732-18-5)						
CARCINOGENS (As defined in 29CFR 1910-1200)		NTP		IARC		OSHA
methylene chloride		not listed		listed		not regulated
Chromate (1 %)		Listed		Listed		Not regulated
PROPER SHIPPING NAME:		HAZARD CLASS:		HAZARD I.D. No.:		
Paint Related Material		Corrosive Material		NA 1750		

SECTION III — PHYSICAL DATA:

BOILING POINT, °F:	Approx 105°F	SPECIFIC GRAVITY:	1.14
VAPOR PRESSURE (mmHg):	Approx 400mm	VOLATILE, % BY VOL:	Approx. 90%
VAPOR DENSITY (AIR = 1):	More than 1	EVAPORATION RATE (Bu. Ac. = 1):	Less than 1
APPEARANCE AND ODOR:		SOLUBILITY IN WATER:	
Viscous opaque yellow brown liquid, phenol odor		Appreciable	

SECTION IV — FIRE AND EXPLOSION HAZARDS:

FLASH POINT AND METHOD USED:	None to boil (Setaflash)
EXTINGUISHING MEDIA:	Carbon dioxide, foam, water fog
SPECIAL FIRE FIGHTING PROCEDURE AND PRECAUTIONS: Use self-contained respiratory protection. Any water run-off may contain hexavalent chrome and should not be allowed to enter sewer or waterways.	
UNUSUAL FIRE AND EXPLOSION HAZARDS: Thermal decomposition may produce toxic oxides of carbon and/or chlorine. Drums exposed to 100°F and above may develop sufficient internal pressure to rupture.	

SECTION V — HEALTH, EMERGENCY AND FIRST AID INFORMATION:

EFFECTS OF OVER EXPOSURE: EYES:	Vapors: Moderate to severe irritation. Liquid: Severe damage, may cause blindness
SKIN:	Chemical burns, possible necrosis, defatting. May be absorbed through skin in toxic amounts Chromates are skin sensitizers.
INHALATION:	Dizziness, headache, intoxication. Inhalation of mist of chromate-containing materials may cause permanent damage to upper respiratory tract, and may cause lung cancer risk.
INGESTION:	Severe irritation to gastrointestinal tract, may be harmful or fatal if swallowed. Toxic effects may not appear immediately.
MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED: Metabolism of methylene chloride to carbon monoxide may lead to accumulation of dangerous levels of carboxyhemoglobin which may not be tolerated by persons with impaired cardio-pulmonary function. This may be aggravated by smoking.	

Chemicals in Section II that have an asterisk are subject to SARA Section 313 reporting.

flush with clean water. Wash with soap and water. Rinse thoroughly. If irritation persists or blistering occurs, obtain medical attention.

INHALATION: Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, apply artificial respiration. Obtain medical attention.

INGESTION: Do not induce vomiting except on advice of qualified medical personnel. If victim is conscious, dilute by giving large volumes of milk or water. Obtain immediate medical attention. Never attempt to induce vomiting or give anything by mouth to an unconscious person.

PRIMARY ROUTES OF ENTRY: INHALATION X SKIN CONTACT X OTHER _____

SECTION VI — REACTIVITY DATE:

STABILITY: STABLE X UNSTABLE _____ HAZARDOUS POLYMERIZATION WILL NOT OCCUR _____

CONDITIONS TO AVOID:

Contact with strong acids, strong oxidizing agents, open flame

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, phosgene, acid gases, other toxic volatile organic compounds.

SECTION VII — SPILL, LEAK AND DISPOSAL PROCEDURE:

SPILL OR RELEASE PROCEDURE: CONCENTRATE: Contain spillage. Stop leak at source, if this can be done safely. Ventilate area. Evacuate nonessential personnel. Pump liquid into DOT-approved drums for disposal. Absorb remaining liquid with inert material and place in DOT-approved drums. Wash area with water. Collect washing and place in DOT-approved drums. Keep concentrate and wash water from entering sewer or waterways.

USE SOLUTION:

Not applicable. This product is used as received.

DISPOSAL INFORMATION: CONCENTRATE: (1) Transfer to reclaiming center for recycling or solvent recovery. (2) Transfer to licensed hazardous waste treatment or disposal site for disposition under applicable local, state and regional regulations as hazardous waste.

SPENT SOLUTION AND RINSES: Dispose per (1) and (2) above. Treat rinse water as hazardous waste. Remove chromate by reduction and precipitation. Remove organics by oxidation and carbon treatment. Clarified rinse water may be released to sewer if local regulations permit.

SECTION VIII — SPECIAL PROTECTION INFORMATION:

RESPIRATORY PROTECTION: If TLV is exceeded, a NIOSH-approved self-contained breathing apparatus, positive pressure hose mask or air line mask is advised. These should have a full face piece and be operated in a positive pressure mode. Because of the short breakthrough time of methylene chloride and its poor warning properties, organic vapor cartridges or canisters are not recommended. If respirators are used, a formal training and screening program must be initiated. See 29 CFR 1910-124.

VENTILATION:

Maintain sufficient mechanical ventilation to keep concentration below TLV.

PROTECTIVE EQUIPMENT: CHEMICAL FACE SHIELD OR GOGGLES: X **GLOVES:** X **BOOTS:** X **APRON:** X **PROTECTIVE SUIT:** _____ If required to avoid prolonged or repeated skin contact.

RECOMMENDED PERSONAL HYGIENE: Wash hands and face with soap and water before smoking or eating. Immediately remove contaminated clothing. Launder separately before reuse. Discard shoes that become contaminated on the interior.

SECTION IX — OTHER INFORMATION:

SPECIAL PRECAUTIONS — STORAGE AND HANDLING: Store in cool area protected from exposure to direct sunlight, rain or standing water. Use care in opening containers to avoid spurtng. **CAUTION:** Vapors from this product are heavier than air and will travel along the ground to collect in low lying areas, such as sumps. Personnel entering such areas must be provided with respiratory protection and a safety line. They should be kept under observation while in the area by another man at a safe distance. Persons wearing contact lenses should wear vapor-proof well-fitting goggles. **NOTE:** (1) Methylene chloride has been found to cause an increase in some types of cancer and benign tumors in certain strains of some mammalian species. **NOTE:** (2) Do not use 1,1,1, trichloroethane, methylene chloride, perchloroethylene, or other halogenated solvents or solvent mixture containing solvents with pressurizable fluid handling equipment such as airless spray equipment containing aluminum or galvanized wetted parts. Direct contact between aluminum or galvanized metal and these or other chlorinated solvents could result in an uncontrollable chemical reaction and possible explosion.

MIXING: Not applicable

REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT: Relieve pressure. Cover openings to avoid spurtng. Clean exterior and interior by flushing with water or solvent. Collect flushing for disposal. Use protective equipment for eyes, skin and inhalation.

DATE PREPARED:

DATE REVIEWED:

APPROVED: JPJ 5/89

O.C. DEPT. I

R & D DEPT. I

SAFETY & ENVIRON.

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